low patients with duplex surveillance compared to 70% in the no anticoagulation group. There was significant variation in timing and duration of duplex surveillance for those not anticoagulated (Day 3 to day 14). Among those who used duplex surveillance only 47% had a protocol for surveillance. Safety of anticoagulation, risk of development of post thrombotic syndrome and quality of life were the key criteria that factored into prescription of anticoagulation. Majority of respondents felt that use of anticoagulation could prevent progression of calf vein DVT. 79% of respondents felt that appropriateness of anticoagulation for calf DVT needed to be addressed with a well designed trial.

Conclusions: Currently there does not appear to be consensus regarding the role of anticoagulation following diagnosis of calf deep vein thrombosis. Additionally, the ideal pattern of surveillance following diagnosis of DVT also needs to be clarified. These are questions best answered by a well designed randomized trial.

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PS154.

Trends in Outpatient Treatment of Vascular Diseases

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Objectives: Recent trends for increase in inpatient vascular surgery (IP) are well documented. In this study we review utilization and procedural shifts for outpatient vascular procedures (OP) for which there are little data.

Methods: The National Survey of Ambulatory Surgery database was used to determine nationwide rates of OP for years 1994-1996, and 2006; the National Inpatient Sample was used for IP. States CA, FL, NY and MD provided both IP and OP data, and were used as a representative sample of the nation for 2006-2009. CPT and ICD9 codes were divided into procedure groups and used to query the databases. Trends were analyzed using interrupted time series.

Results: Between 1994 and 2009 the rate of OP increased 250%, from 93.3 to 326.9 per 100,000 capita. Aging population accounted for 39% of the increase. Growth in OP outpaced IP, accounting for 15.8% of all interventions in 1994 and 32.3% in 2009. Patients 65 years and older had the greatest increase, and men had higher rates than women. Of the procedure groups, revascularization, imaging and arteriovenous access had the largest percent increase; rates of venous , skin graft and minor amputation procedures were stable (Table).

Conclusions: Vascular surgeries are increasingly performed as outpatient operations, both in absolute number and as a percent of the total. Possible causes include an increase in the prevalence of relevant risk factors, newer technologies, proliferation of freestanding surgical units and reimbursement policies.

Table. Trends in the utilization of specific outpatient surgery groups

	NSAS No data post-2006		*Combined states*		
	Procedures per 100000		*Procedures per 100000*		
	1994	*2006*	*2006*	*2009*	*Percent change*
Revascularization	7.75	36.28	38.79	50.06	545.58%
AV access	11.11	44.48	46.85	52.97	376.78%
Imaging	26.73	86.44	75.88	91.50	242.37%
Venous procedures	17.99	32.46	26.64	26.32	46.29%
Minor amputation	2.85	7.14	3.40	3.63	27.18%
Skin graft	2.90	3.67	2.52	2.80	-3.68%

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PS156.

Surgical Managment of Infected Femoral Artery Pseudaneursms: A Contemporary Series

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Objectives: Infected femoral artery pseudoaneurysms (IFAPs) are a significant surgical challenge and can lead to life-threatening hemorrhage or limb loss in a primarily young population.

Methods: A retrospective review of patients who presented with IFAPs between 1997 and 2010. Demographics, initial presentation, pre-operative imaging, surgical intervention, and outcome data were recorded.

Results: Fifty cases were treated during the study period. The majority were male (72%), with median age of 37 years old (range 21-63). Black tar heroin injection was the most common etiology (84%), followed by access site pseudoaneurysms (10%). Common femoral artery ligation was performed in 42 cases (84%) with preservation of the femoral bifurcation in 28 cases (56%). Vascular control was accomplished by proximal occlusion of the ipsilateral external iliac artery via a retroperitoneal incision in 24% of the cases or by selective cannulation of the ipsilateral external iliac artery from a contralateral percutaneous common femoral artery approach and placement of a compliant occlusion balloon (14%). In the remainder of

the cases, the approach was via a vertical incision overlying the common femoral artery. Reconstruction for critical limb ischemia was needed in 16 cases (32%) and amputation in 7 cases (14%). Median post-operative ABI was 0.41 (range 0.23-0.70) while 30 day median ABI improved to 0.64 (range 0.26-0.93). Claudication on follow up or ischemic rest pain was documented in 23 cases (46%).

Conclusions: Simple ligation of the femoral artery and debridement of the necrotic tissue is an effective first line therapy for treatment of IFAP. This is tolerated by most patients particularly if the femoral bifurcation is preserved. Reconstruction should be reserved for those with acute limb ischemia following the ligation. Endovascular balloon occlusion of the ipsilateral external iliac artery is an effective minimally invasive technique of obtaining proximal vascular control of infected pseudoaneurysms.

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PS158.

Blunt Aortic Injury Does Not Warrant Emergent Repair

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Objectives: Blunt aortic injury (BAI) has been traditionally treated as an emergency. The mortality for early repair has been reported up to 30-40%. Delayed repair has shown better outcome. This study is a single center review in the management of BAI where early repair <48 hr. was compared to delayed >48 hr.

Methods: BAI admitted at a tertiary hospital over a 8-year period (2004-2011). The patients were divided in to early repair vs. delayed repair. Outcome variables included survival, injury severity score (ISS), ICU and hospital length of stay.

Results: A total of 26 patients (male=22; mean age 42±16.3 yr.) presented with a BAI on CTA. There were no deaths from blunt aortic injury or repair. No difference was found between ISS, survival or non-vascular procedures between groups. The mean BAI grade was 3.0 in the early group and 2.9 in the delayed group. Mean follow up (months) was 46.2 for early group and 30.4±27.3 (mean ± STDEV). Three patients with intimal flaps (Grade-I) were managed non-operatively and were successfully discharged. One patient underwent open repair in the early group (n=12). In this group there was one death from non-vascular injuries despite endograft repair. There were no deaths in the delayed group (n=11). The time from arrival to surgery was 23.5±32 days (range 2-91). Two patients underwent endograft repair electively after serial CT scans. One patient in the early group had an endograt collapse due to bird beak. A second endograft had to be placed to salvage the first, 17 days later. In the early group one patient had a traumatic aortic dissection which was urgently repaired for hemorrhage in the chest.

Conclusions: Patients with blunt aortic injuries that survive, may not require emergent repair. Delayed repair of BAI may be preferred in selected patients with serial imaging and aggressive negative inotropic therapy. Long term follow up is warranted and may be difficult to achieve this this population.

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PS160.

Treatment of Blunt Traumatic Aortoiliac Injury: A Single Institution Experience

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Objectives: Blunt traumatic aortoiliac injury (BTAII) is unusual due to its protected location. When it does occur, BTAII is associated with extensive intraperitoneal injuries. Optimal management is unclear since few cases are reported in the modern literature. The purpose of this study is to evaluate our experience in management of BTAII.

Methods: A review of a prospectively maintained database revealed 304 aortic injuries in 55,876 trauma admissions (0.03%) between Jan 2001 and Nov 2011. Among these, 15 patients had BTAII and comprise the study group.

Results: Of the 15 patients with BTAII, 11 were male and the median age was 47 years (range 5-80). Four patients (27%) died after arrival to the hospital. Two patients (13%) with traumatic dissections without intraabdominal injury were medically managed. Thirteen (87%) patients required exploratory laparotomy; and 12 (80%) required repair of bowel injuries. Two patients died in the operating room, only one of whom died as a result of aortic injury. Two other patients died later as a result of multiorgan failure. Six patients (40%) required aortoiliac repair or revascularization: primary aortic repair (n=2), in situ aortoiliac prosthetic bypass (n=2), iliac artery bypass with autogenous vein (n=1) and iliac thrombectomy with femorofemoral bypass (n=1). All patients with aortoiliac repair